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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,753	03/01/2000	Gregory Pinchasik	2390/49701	3706

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EXAMINER
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BUI, VY Q

ART UNIT	PAPER NUMBER
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3731

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/516,753

Applicant(s)

PINCHASIK ET AL.

Examiner

Vy Q. Bui

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment on 8/5/2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75,77-92 and 95-129 is/are pending in the application.
- 4a) Of the above claim(s) 12-19,51-66,106 and 107 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11,20-50,67-75,77-92,95-105 and 108-129 is/are rejected.
- 7) ☒ Claim(s) 8, 26, 34, and 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

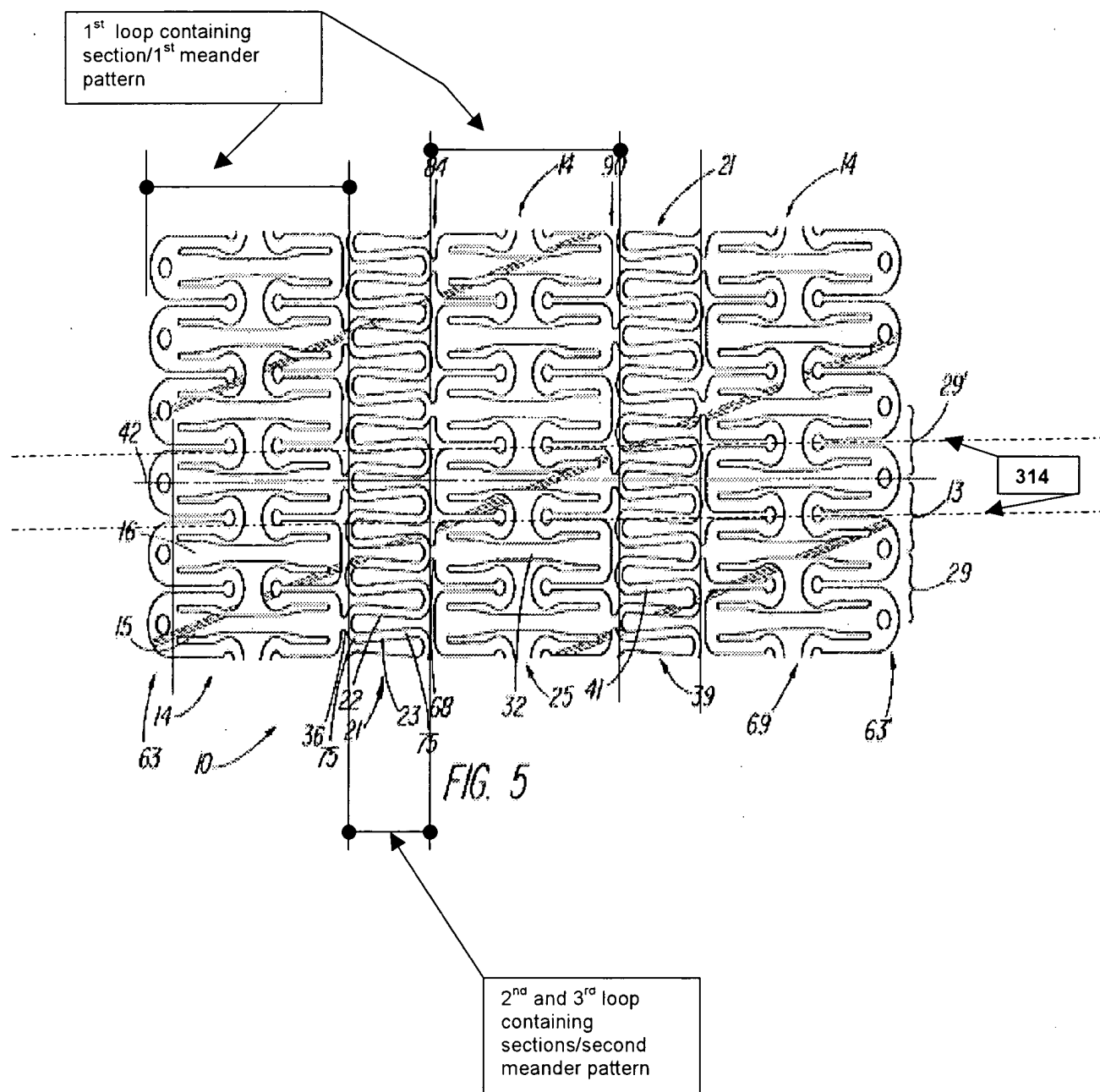
Claims 1-7, 9-10, 20-25, 27-32, 37-46, 48-50, 67-70, 72-75, 77-84, 86-88, 90-91, 95-105, 108-119 are rejected under 35 U.S.C. 102(e) as being anticipated by BERRY et al (6,231,598).

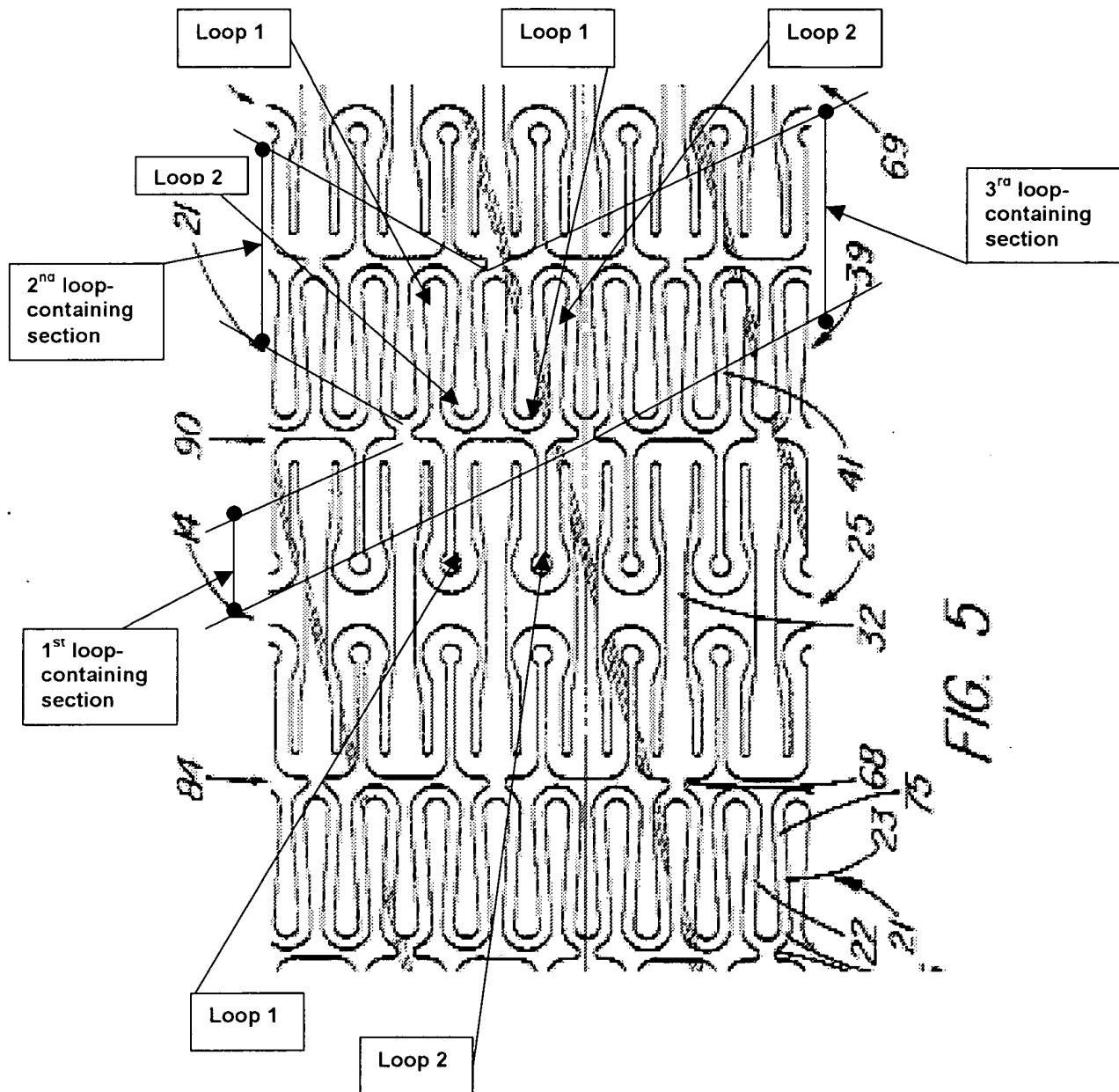
BERRY (Figs. 5 as shown below, for example) discloses a stent of stainless steel or nitinol:

As to claims 1-7, 9-10 and 45, BERRY (Fig. 5, page 4 this paper) discloses: 1<sup>st</sup> loop-containing section (highlighted in brown), 2<sup>nd</sup> loop-containing section (green) and 3<sup>rd</sup> loop-containing section (purple). The 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> loop-containing sections form triangular cells (highlighted in yellow), wherein each cell covers the same area. Notice that 1<sup>st</sup> loop-containing section has wider struts than the 2<sup>nd</sup> and 3<sup>rd</sup> loop-containing section, each loop-containing section has two loops, 1<sup>st</sup> and 2<sup>nd</sup> junction points are circumferential aligned.

As to claim 20, BERRY (column 15, lines 59-63) discloses the stent is coated for reduction of friction.

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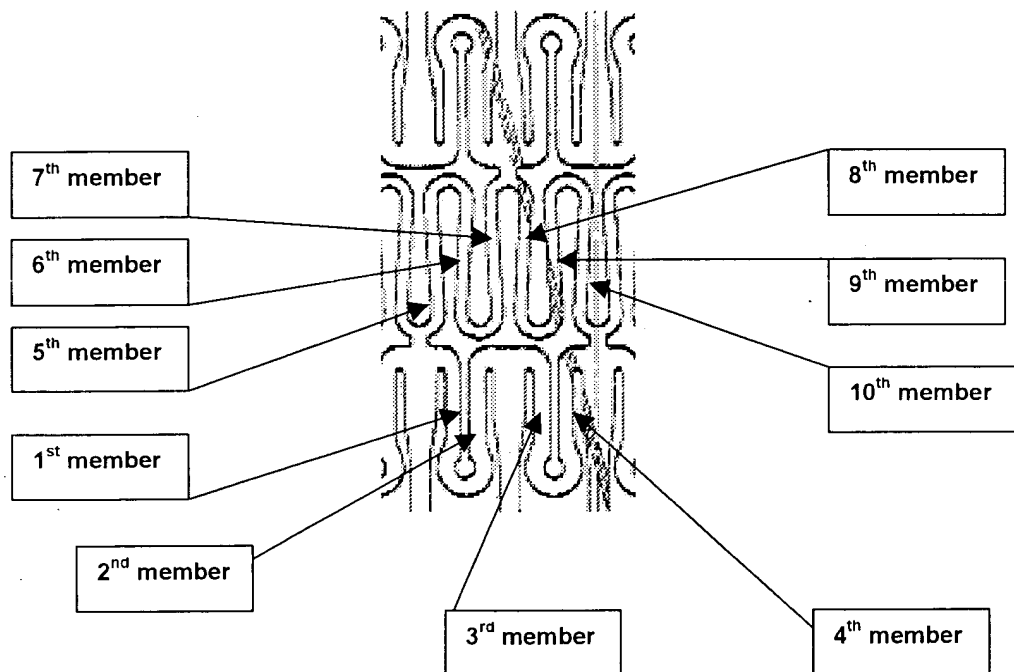




As to claims 21-25, 27-28, 31-33, 37-46, and 48—50, BERRY (Fig. 5, page 3, this paper) discloses vertical meander/first meander pattern (highlighted in red) with

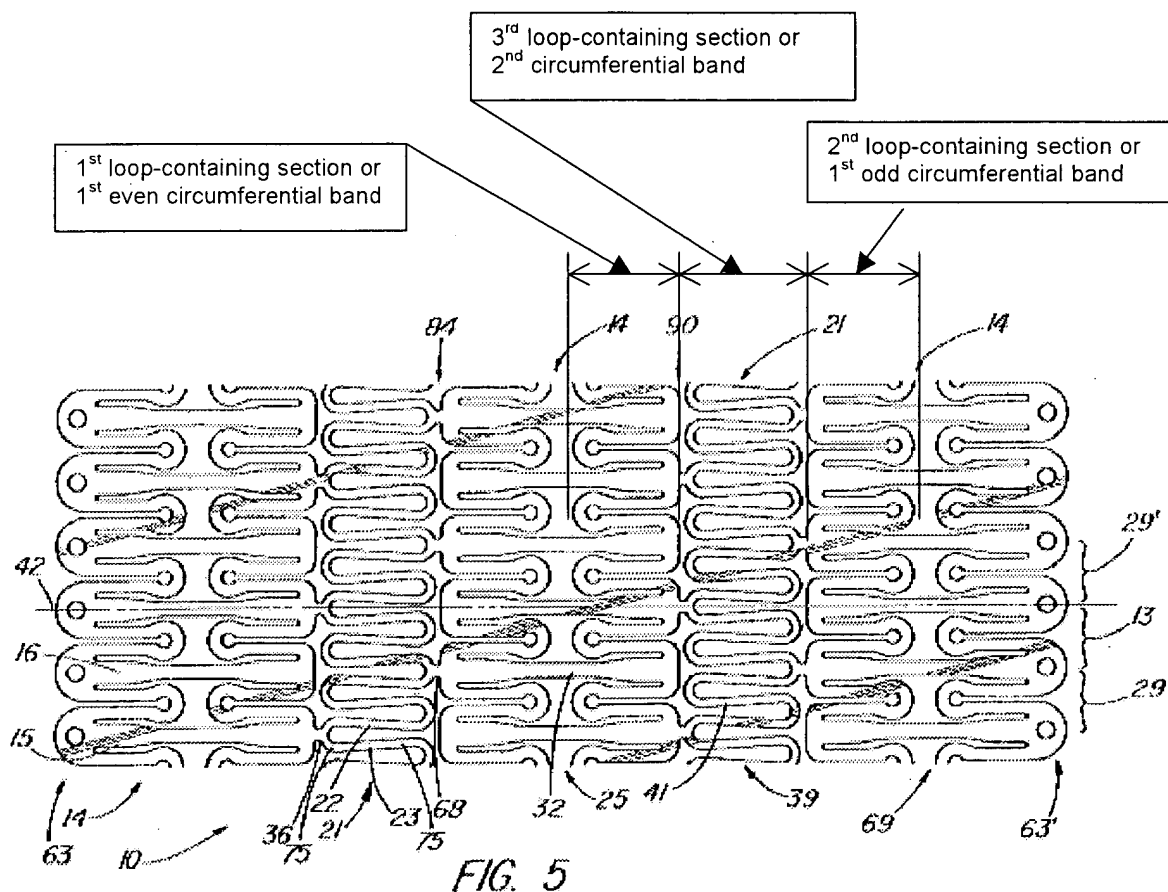
centerlines 301 and horizontal meander/second meander pattern (in green) with centerlines 314. The centerlines 301 of the vertical meander/first meander pattern are orthogonal to the centerlines 314 of the second/horizontal meander patterns. The vertical/first meander patterns include even vertical/first meander patterns 310e and odd vertical/first meander patterns 310o. The second/horizontal meander patterns include even horizontal/second meander patterns 312e and odd horizontal/second meander patterns 312o. Notice that the first/vertical meander patterns have two loops per period and the second/horizontal meander patterns have 4 loops per period as shown.

As to claims 67-70, 72-75, 77-81, 83-84, 86-88, and 90-91, BERRY (Fig. 5, this paper) discloses stent of stainless steel or nitinol having 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> members which are interconnected as recited in the claims. The curved junction portions of the members define loops (shown in Fig. 5, page 6) as recited in the claims.



**FIG. 5 (for reference of claims 67-92)**

As to claims 95-104, 106-114, and 115-117, BEERY (Fig. 5, also Fig. 5 on page 7, this paper) discloses an even first loop containing section 301e/first circumferential band, an odd first loop containing section 301o/first circumferential band and third loop containing section/second circumferential band disposed between the first and second loop containing sections. The first or second loop containing sections (or the first circumferential band) and the third loop containing section (or the second circumferential band) defines loops as recited in the claims.



**(For reference to claims 95-119)**

As to claim 105, BERRY (Fig. 28) discloses stent 10 having cells with circumferential lengths being longer than longitudinal lengths in expanded position.

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As to claims 118-119, BERRY discloses the stent of stainless steel (balloon expanded) or Nitinol (self-expanded).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 71, 82, 85, 89, 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over BERRY et al (6,231,598).

As to claim 11, BERRY does not disclose stent 10 having cells with circumferential lengths being longer than longitudinal lengths in expanded position. However, modifying the dimension of the cells to fit the features as recited in the claim is quite within level of one of ordinary skill in the art so as to provide more expansion in a circumferential direction for the stent.

As to claims 71, BERRY does not disclose at least one of the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> members has a length that is about twice the length of at least one of the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> members in the same space. However, it would have been an obvious matter of design choice to modify the dimension of the members accordingly to achieve the characteristics as recited in the claims, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claims 82, 85, BERRY does not disclose that at least one or all of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> members are more flexible than at least one or all of the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> members. However, it would have been an obvious matter of design choice to



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modify the dimension of the members accordingly to achieve the characteristics as recited in the claims, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claims 89, 92, BERRY does not disclose that at least one or more of the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> is/are more resistant to radial compression than at least one of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> members. However, it would have been an obvious matter of design choice to modify the dimension of the members accordingly to achieve the stent feature as recited in the claims, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). More over, change in size/dimension of the struts/beams of a stent to make them more flexible/rigid (more resistant to radial compression) is well known in the art.

As to claims 120-129, BERRY does not disclose every limitation as recited in the claims. However, the limitations as recited in the claims are well known in the art and it would have been obvious to one of ordinary skill in the art to modify BERRY device as recited in the claims so as to make BERRY device usable for more applications.

### ***Allowable Subject Matter***

Claims 8, 26, 34 and 47 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Amendment***

The amendment filed on August 5, 2002 under 37 CFR 1.131 has been considered but is ineffective to overcome the BERRY reference.

The amendment recites the limitation "without connection directly" between "the first loop containing section" (claim 1 for example), or "without connection directly between first and fourth members" (claim 67 for example) to define the present invention over BERRY. Because the limitation "without connection directly" is a negative limitation and does not constitute a clear distinction between the present invention and BERRY reference, and by reading the claims as amended, one of ordinary skill in the art can not clearly recognize the difference between the present invention and BERRY device. Therefore, it appears reasonable to consider that BERRY device also include a lack of direct connection between components as recited in the amendment and the new rejection is applicable.

In addition, it is well known in the art to modify the width, the thickness of the struts in a stent at various location to provide a local radial strength/rigidity and local flexibility as one desires. Similarly, one of ordinary skill in the art would be able to modify the dimensions of the struts of a stent to limit the maximal strain or to control the deformation of the stent under a known operation condition, such as inside a blood vessel.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vy Q. Bui whose telephone number is (703) 306-1382.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano, can be reached at (703) 308-2496. The fax number for this Unit is (703) 308-2708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist at (703) 308-0858

VQB

January 25, 2001



**MICHAEL J. MILANO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**